



# United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E. Suite 400  
Aberdeen, South Dakota 57401

OCT 26 2012

IN REPLY REFER TO:  
DESCRM  
MC-208

## MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: Acting Regional Director, Great Plains Region

SUBJECT: Supplemental to Environmental Assessment

A Categorical Exclusion has been completed in compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended. The proposed Supplemental Categorical Exclusion is for information tiering off of an existing Environmental Assessment for Arrow Pipeline to install pipelines within previously approved right of way on trust lands on the Fort Berthold Indian Reservation.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the Categorical Exclusion.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Tex Hall, Three Affiliated Tribes (with attachment)  
Elgin Crows Breast, THPO (with attachment)  
BLM, Dickinson, ND (with attachment)  
Jason Bivons, SWCA (with attachment)  
Carson Hood/Fred Fox, MHA Nation (with attachment)  
Jeffrey Hunt, Fort Berthold Agency (e-mail)



# United States Department of the Interior

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115 Fourth Avenue S.E.  
Aberdeen, South Dakota 57401

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## EXCEPTION CHECKLIST FOR BIA CATEGORICAL EXCLUSIONS

Project: Arrow Phase 2 Loop Pipeline System Date: 10/24/2012

Nature of Proposed Action: A signed categorical exclusion checklist would authorize Arrow Pipeline, LLC (Arrow) to construct and install three individual pipelines which would transfer oil, natural gas, and produced water. The proposed pipeline would be constructed entirely within the previously approved AMHP 100-foot-wide ROW on trust lands within the Fort Berthold Indian Reservation. Approximately 27,740 feet (5.25 miles) of the proposed alignment would be constructed within the approved ROW on trust land.

Exclusion category and number: 516 DM 10.5 F (1) Rights-of-Way

### Evaluation of Exceptions to use of Categorical Exclusion:

1. This action would have significant adverse effects on public health or safety. No X Yes \_\_\_\_\_
2. This action would have an adverse effect on unique geographical features, such as wetlands, wild or scenic rivers, refuges, floodplains, rivers placed on nationwide river inventory, or prime or unique farmlands. No X Yes \_\_\_\_\_
3. The action will have highly controversial environmental effects. No X Yes \_\_\_\_\_
4. The action will have highly uncertain environmental effects or involve unique or unknown environmental risks. No X Yes \_\_\_\_\_
5. This action will establish a precedent for future actions. No X Yes \_\_\_\_\_
6. This action is related to other actions with individually insignificant, but cumulatively significant environmental effects. No X Yes \_\_\_\_\_
7. This action will affect properties listed or eligible for listing in the National Register of Historic Places. No X Yes \_\_\_\_\_

8. This action will affect a species listed, or proposed to be listed as endangered or threatened. No X Yes \_\_\_\_\_
9. This action threatens to violate federal, state, local or tribal law or requirements imposed for protection of the environment. No X Yes \_\_\_\_\_
10. This action will have a disproportionately high and adverse effect on low income or minority populations. No X Yes \_\_\_\_\_
11. This action will limit access to, and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners, or significantly adversely affect the physical integrity of such sacred sites. No X Yes \_\_\_\_\_
12. This action will contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or may promote the introduction, growth, or expansion of the range of such species. No X Yes \_\_\_\_\_

A "yes" to any of the above exceptions will require that an EA be prepared.

NEPA Action - - - CE X EA \_\_\_\_\_

Preparer's Name and Title: Jeffrey Davis, Environmental Protection Specialist

Regional Archeologist Concurrence with Item 7 Casson B. Mandy

Concur: Jeffrey P. Davis  
Regional Office/Agency Environmental Coordinator

Date: 10-24-2012

Concur: Tim McBratney  
Acting Regional Director/Superintendent

Date: 10-26-2012

**Categorical Exclusion  
with Pertinent Analysis Documentation**

**United States Bureau of Indian Affairs**

**Great Plains Regional Office  
Aberdeen, South Dakota**



**Arrow Pipeline, LLC**

**Categorical Exclusion 516 DM 10.5 F (1) to Authorize Land Use  
for the Arrow Phase 2 Loop Pipeline System**

**Fort Berthold Indian Reservation**

**October 2012**

For information contact:  
Bureau of Indian Affairs, Great Plains Regional Office  
Division of Environment, Safety and Cultural Resources Management  
115 4th Avenue SE, Aberdeen, South Dakota 57401  
(605) 226-7656

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### **Appendix**

A Plats, Drawings, and Diagrams for the Proposed Phase 2 Loop Pipeline System	
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## **1. Purpose and Need for the Proposed Action**

The purpose of the proposed action is to authorize the land use by Arrow Pipeline, LLC (Arrow) for the construction and installation of the Phase 2 Loop Pipeline System (pipeline). The proposed pipeline would be located entirely within the previously approved 100-foot-wide construction right-of-way (ROW) of the Arrow Midstream Holdings Pipeline (AMHP) and would transport oil, natural gas, and produced water from producing wells to markets.

With the AMHP approaching capacity, the proposed action would enable Arrow to increase crude oil transport capacity from 35,000 barrels per day to 60,000 barrels per day, as well as increase natural gas transport capacity from 28,000 million cubic feet per day (MCFD) to 48,000 MCFD. Produced water transport capacity would also be increased. Depending on production rates (peak vs. average), the proposed pipeline would have the ability to handle an additional 33-125 wells with the capacity increase. The addition of this pipeline would reduce the amount of truck transport and also provide backup capabilities if one line is taken out of service, eliminating the need to shut wells in. Proposed construction would begin around June of 2013.

Developments have been proposed on land held in trust by the United States in McKenzie County, North Dakota. The Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The economic development of available resources and associated BIA actions are consistent with the BIA's general mission. Leasing and development of mineral resources offers substantial economic benefits to the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and to individual tribal members.

## **2. Authorities**

Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, et seq.), the Indian Mineral Development Act of 1982 (25 USC 2101, et seq.), and the Energy Policy Act of 2005 (42 USC 15801, et seq.).

## **3. Legal Land Description for Proposed Action**

The pipeline would be located on trust lands originating from the approved Arrow Station #3 Phase 1B South Compressor and Pump Station (CPS), in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 16, Township (T) 149 North (N), Range (R) 93 West (W), 5<sup>th</sup> Prime Meridian (P.M.), McKenzie County, North Dakota, and terminate at the approved Arrow Station #2 Phase 1B Highway 22 South CPS (tie-in) in the NW $\frac{1}{4}$ , SE $\frac{1}{4}$  of Section 15, T149N, R94W, 5<sup>th</sup> P.M., McKenzie County, North Dakota, approximately 0.9 mile southwest of Mandaree, North Dakota (Figure 1). The proposed pipeline would traverse trust lands in Sections 16, 17, and 18, T149N, R93W, and through Sections 13, 14, and 15, T149N, R94W, until terminating at the tie-in.



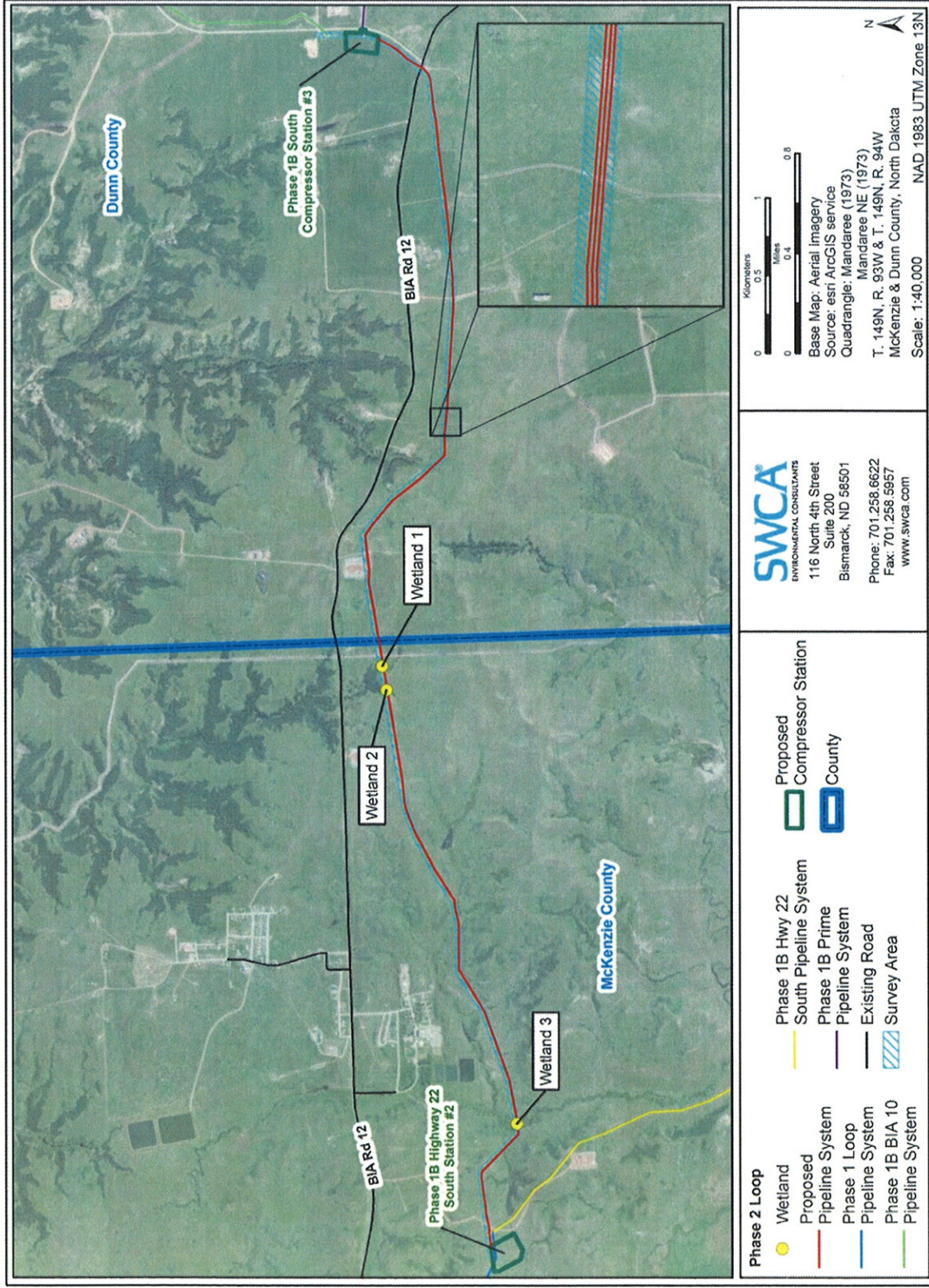


Figure 1. Map of the proposed Phase 2 Loop Pipeline. Note: Inset map shows relationship of proposed pipeline centerline to overall approved AMHP ROW.

#### **4. Scope of Work for Proposed Action**

The natural gas pipeline would be constructed approximately 15 feet away from the AMHP pipeline. Oil and produced water pipelines would be constructed 5 feet apart and 10 feet from the existing AMHP pipeline. Oil and natural gas pipelines would be no greater than 18 inches in diameter and constructed of new steel. The produced water pipeline would also be no greater than 18 inches in diameter and constructed of Fiberspar<sup>®</sup> or similar corrosion-resistant material. All of the construction disturbances would occur within the previously approved 100-foot-wide AMHP ROW.

Approximately 55,466 feet (10.5 miles) of new steel pipe, and 27,733 feet (5.25 miles) of Fiberspar or similar pipe, would be needed to transport oil, natural gas, and produced water from the approved Station #3 Phase 1B South CPS to the Station #2 Phase 1B Highway 22 South CPS (Appendix A). All construction (temporary) and permanent surface disturbance would occur entirely within the previously approved 100-foot-wide ROW of the AMHP.

#### **5. Materials Information and Corrosion Rates**

##### **Steel Pipe**

Arrow proposes to construct the oil and natural gas pipelines using new steel pipe rated by the American Petroleum Institute (API) as 5L X52. Arrow would ensure that each steel pipe segment is coated with approximately 14 to 16 millimeters of fusion bonded epoxy coating. Further, Arrow would deploy an active cathodic protection system for all steel pipe, which further reduces the likelihood of external corrosion. Arrow would ensure that each steel pipe segment is allotted a 1/16-inch corrosion allowance; however, because of the non-corrosive nature of Bakken crude and the low concentrations of hydrogen sulfide, Arrow does not anticipate any external or internal corrosion during the operating lifetime of the pipe, which, at a minimum, is estimated to be 50 years.

##### **Fiberspar or Similar Pipe**

Arrow proposes to construct the produced water pipeline using a material known as Fiberspar or one with the same corrosion-resistant characteristics as Fiberspar. This type of material is not subject to internal or external corrosion.

#### **6. Spill Response Plan**

Arrow has developed a Spill Response Plan (Plan) (Middick 2011<sup>1</sup>) for the Phase 3 Southwest pipeline. The spill preventative measures and monitoring protocols, notification procedures, spill detection and on-scene spill mitigation procedures, response activities, contacts, training and drill procedures, and response plan review and update procedures, as referenced in the Plan, apply to the proposed pipelines. A copy of the Plan has been filed with the BIA and Arrow has legally committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194). Arrow has committed to

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<sup>1</sup> Middick, A. 2011. *Operations Monitoring and Spill Response Plan*. Blackshare Environmental Solutions. Oklahoma City, Oklahoma.



submitting a spill response plan, specific to this proposed project, to the BIA prior to the commencement of construction activities.

## **7. Pipeline Marking Procedures**

Arrow adheres to the requirements of 49 CFR Part 192.707 with regard to the marking of buried pipelines. Specifically, Arrow would place pipeline markers within 1,000 feet of one another at all public road crossings, railroad crossings, creek crossings, and fence crossings, and at all points of major direction change.

## **8. Quality Control/Quality Assurance Measures**

Arrow purchases steel pipe that is rated as API 5L X52 and inspects all pipe while at the mill to ensure quality. Arrow is also present to ensure that external epoxy coating is applied to a minimum thickness of 14 millimeters. During construction, all welds are visually inspected for quality and completeness by qualified professionals. Once welds have passed visual inspection, they are subjected to 100 percent non-destructive testing. After passing these tests, the weld areas are covered for corrosion protection. After the weld areas have been covered, the external coating of the pipe is inspected using a jeepmeter to detect holes and cracks. The pipe is lowered into the trench and buried. Prior to being put into service, the steel pipe is hydrotested to approximately 1.5 times the minimum design pressure of 1,180 pounds per square inch gauge.

## **9. Valve Locations**

Two valves would be installed at each end of the proposed pipeline. One valve would be installed at the well location and the second valve would be installed at the proposed tie-in. The installation of two valves for each line would allow Arrow to isolate the proposed pipeline, if required.

## **10. Reclamation**

### **Interim Reclamation**

Reclamation would continue to occur over the life of the pipeline. Interim reclamation would be required after initial construction and then following any maintenance work or additions of infrastructure. Reclamation would be required before final abandonment of the decommissioned pipeline. Successful reclamation would at all times be the responsibility of the system's operator.

Trenches would be backfilled immediately after the pipe is installed and testing is complete, assuming frozen or saturated soils are not present. Backfill piles would be stored opposite of the topsoil piles during construction. If construction occurs during winter, Arrow would partially fill the trench with useable, non-frozen, backfill soil to the extent possible and cover the entire ROW including the trench with straw. The trench would be backfilled and topsoil distributed as soon as practicable after the soil has defrosted. Topsoil piles would be covered

to eliminate the potential for rill erosion and subsequent loss of soil during spring snow melt and precipitation events.

Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas. To reduce compaction, the ROW would be plowed before the stockpiled topsoil is distributed.

The disturbed areas would be reclaimed and contoured as soon as possible after construction is complete (fall/spring). The ROW would be covered with stockpiled topsoil and seeded with a seed mixture determined by the BIA. Arrow would control noxious weeds within the ROW and other applicable facilities by approved chemical or mechanical methods. If seeding of the ROW does not occur due to growing season constraints, Arrow would deploy approved weed-free hay across the entire ROW. The presence of hay across the ROW would reduce the potential for excessive erosion as a result of spring snow melt and precipitation.

The entire ROW would be monitored for erosion, subsidence, and noxious weeds. In areas where problems are found to occur, reclamation efforts would continue until the BIA feels the ROW is successfully reclaimed. Reclamation is considered successful when:

- seeded areas are established;
- adjacent vegetative communities spread back into the disturbed areas; and
- noxious weeds are under control.

If after two growing seasons the new seeding is not successful, the BIA may require additional efforts to establish vegetation. For noxious weeds, a survey was conducted on the ROW prior to the construction commencing. The BIA has developed a weed management plan to treat known or likely to occur noxious weed species.

### **Final Reclamation**

Final reclamation would occur when the pipeline is decommissioned. All disturbed areas would be reclaimed, reflecting the BIA's view of oil and gas exploration and production as temporary intrusions on the landscape. All facilities would be removed. It is economically and environmentally unfeasible to excavate and remove the decommissioned pipelines. Instead, the pipelines would be purged with water of any natural gas remaining in the lines and abandoned in place.

## **11. Surveys**

The AMHP ROW has been surveyed for impacts to natural and cultural resources with no significant findings. SWCA identified three wetlands within the approved AMHP ROW. In order to be consistent with the conditions of the approval provided in the applicable National Environmental Policy Act (NEPA) document (see Section 12), Arrow would be required to directionally drill underneath Wetland 3 for 415 feet. Wetland 3 is located in the NW¼ SW¼ Section 14, T149N, R94W. Construction would temporarily disturb vegetation in Wetlands 1 and 2 but no long-term or permanent impacts are expected.

In total, approximately 63.67 acres of the previously approved AMHP ROW would be disturbed as a result of activities associated with the construction of the proposed pipeline. Pipeline plats are provided in Appendix A.

The cultural resource inventory of the AMHP ROW was conducted by SWCA Environmental Consultants, using an intensive pedestrian methodology. Approximately 331 acres were inventoried during field surveys in 2008 (Markman et al. 2009<sup>2</sup>). A representative of the Three Affiliated Tribes Tribal Historic Preservation Office (THPO) identified five areas of cultural consideration within the survey corridor. Avoidance of these five locations was recommended during the field inventory, and a new route was inventoried that successfully avoids these resources. One archaeological site was revisited that may retain the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion in the National Register of Historic Places. On the basis of the information provided, the BIA reached a determination of no historic properties affected for this undertaking, as the archaeological site will be avoided. This determination was communicated to the THPO on February 13, 2009, and the THPO concurred on February 18, 2009.

## **12. Applicable NEPA Document(s)**

*Environmental Assessment and Finding of No Significant Impact: Arrow Midstream Holdings, LLC Oil and Gas Gathering System (March 2009).*

## **13. NEPA Adequacy Criteria**

This document has identified the above-mentioned previously prepared NEPA document, which adequately describes the environmental consequences of the newly proposed action described herein and meets the following NEPA Adequacy Criteria.

1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA document.
2. The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA document, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
3. The existing analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies or resource assessment information.
4. The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed action.
5. The direct and indirect impacts of the proposed action are unchanged from those identified in the existing NEPA document.

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<sup>2</sup> Markman, J.M., K.M. Ferris, E. Salisbury, and S. Slessman. 2009. *A Class I and Class III Cultural Resource Inventory of the Proposed Arrow Pipeline and Compressor Station, Fort Berthold Indian Reservation, McKenzie and Dunn County, North Dakota*. Prepared by SWCA Environmental Consultants for Arrow Midstream Holdings LLC, Tulsa, OK.

6. The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA document.
7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA document.

**APPENDIX A**  
**Plats, Drawings, and Diagrams for the**  
**Arrow Phase 2 Loop Pipeline System**

### PIPELINE RIGHT-OF-WAY DESCRIPTION

A 20' WIDE RIGHT-OF-WAY 20' ON SOUTH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

[illegible]

PROPERTY OWNER	FEET	ACRES	RODS
690A-A	150.22	0.060	7.89
7890A-B	2178.85	0.977	126.90
690A-D	661.23	0.34	44.07
690A	2891.41	1.27	161.69
744A	2652.42	1.218	160.75
3068	3351.56	1.539	203.13
7897A	2685.87	1.231	162.78
752A	2899.35	1.221	161.17
754A	2839.35	1.313	173.29
697A	2224.51	1.035	136.64
7855A	3336.42	1.546	204.03
851A-B	1181.68	0.543	71.62
862A-A	355.64	0.168	22.17
961A-E	785.76	0.361	47.62
TOTAL	27732.53	12.733	1660.76

## ARROW PIPELINE, LLC

# PIPELINE RIGHT-OF-WAY ON TRIBAL LANDS

(FOR PHASE #2 LOOP)

LOCATED IN  
SECTIONS 16, 17, & 18  
T49N, R93W, 5th P.M., &  
SECTIONS 13, 14, & 15  
T49N, R94W, 5th P.M.,  
MCKENZIE COUNTY, NORTH DAKOTA

## BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



REGISTERED LAND SURVEYOR  
REGISTRATION NO. 4454  
STATE OF NORTH DAKOTA

REMSID: 08-03-12

**UNTAH ENGINEERING & LAND SURVEYING**  
85 SOUTH - 200 EAST • (435) 789-1017

VERNAL, UTAH - 84078

SCALE	NO SCALE
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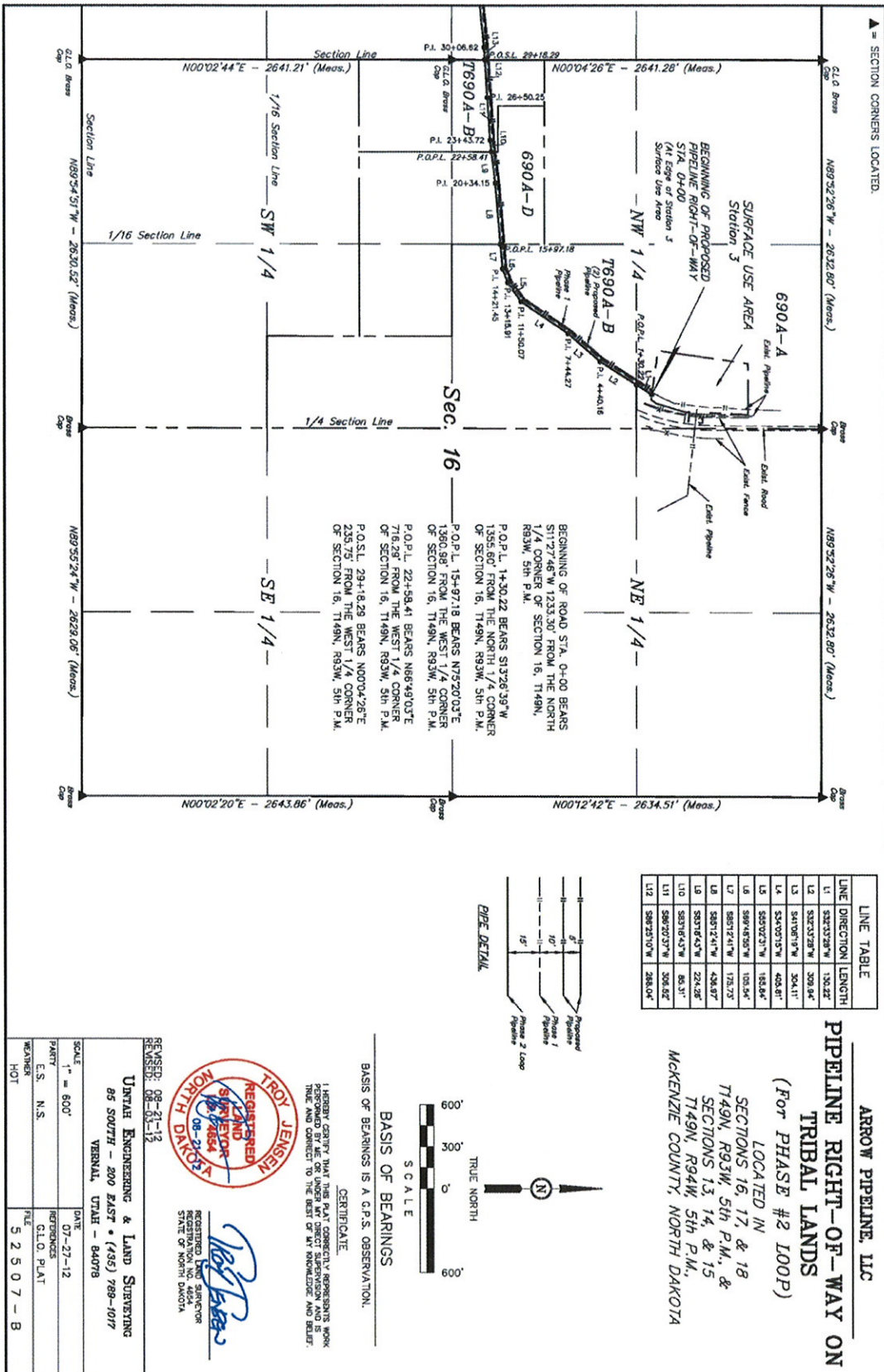
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E.S.	N.S.
WEATHER	

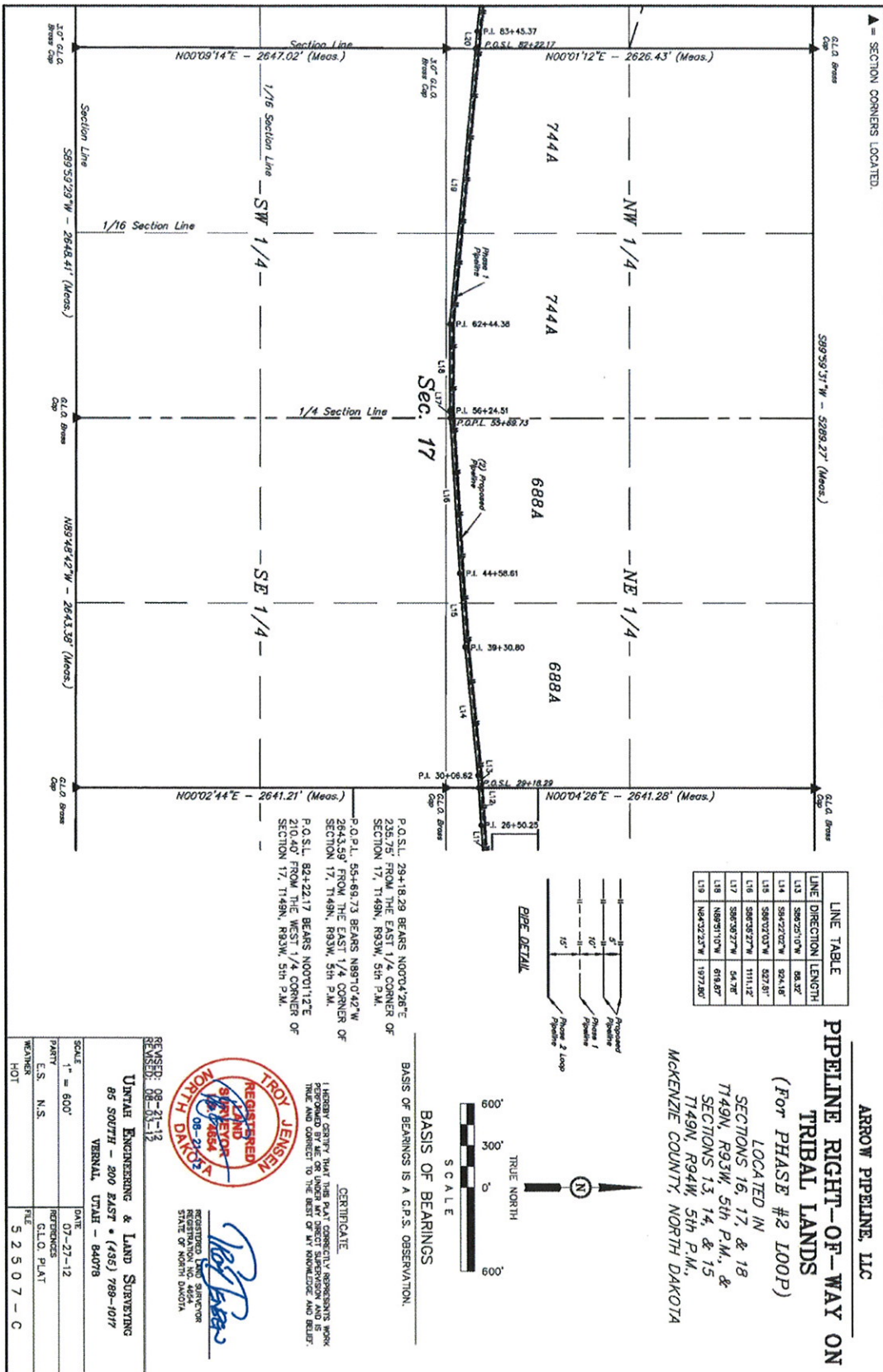
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**Categorical Exclusion 516 DM 10.5 F (1) to Authorize Land Use for the  
Arrow Phase 2 Loop Pipeline System (October 2012)**

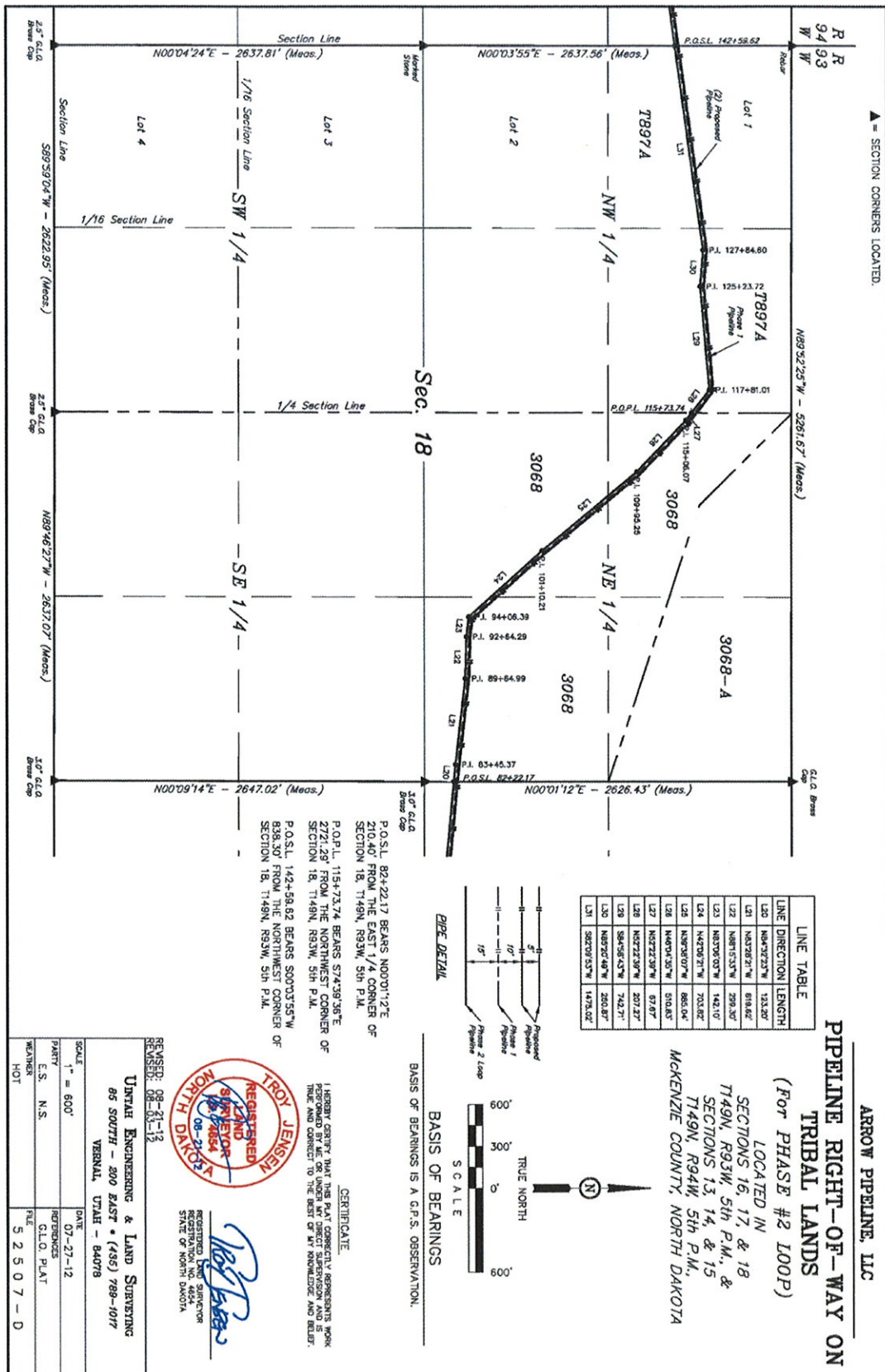


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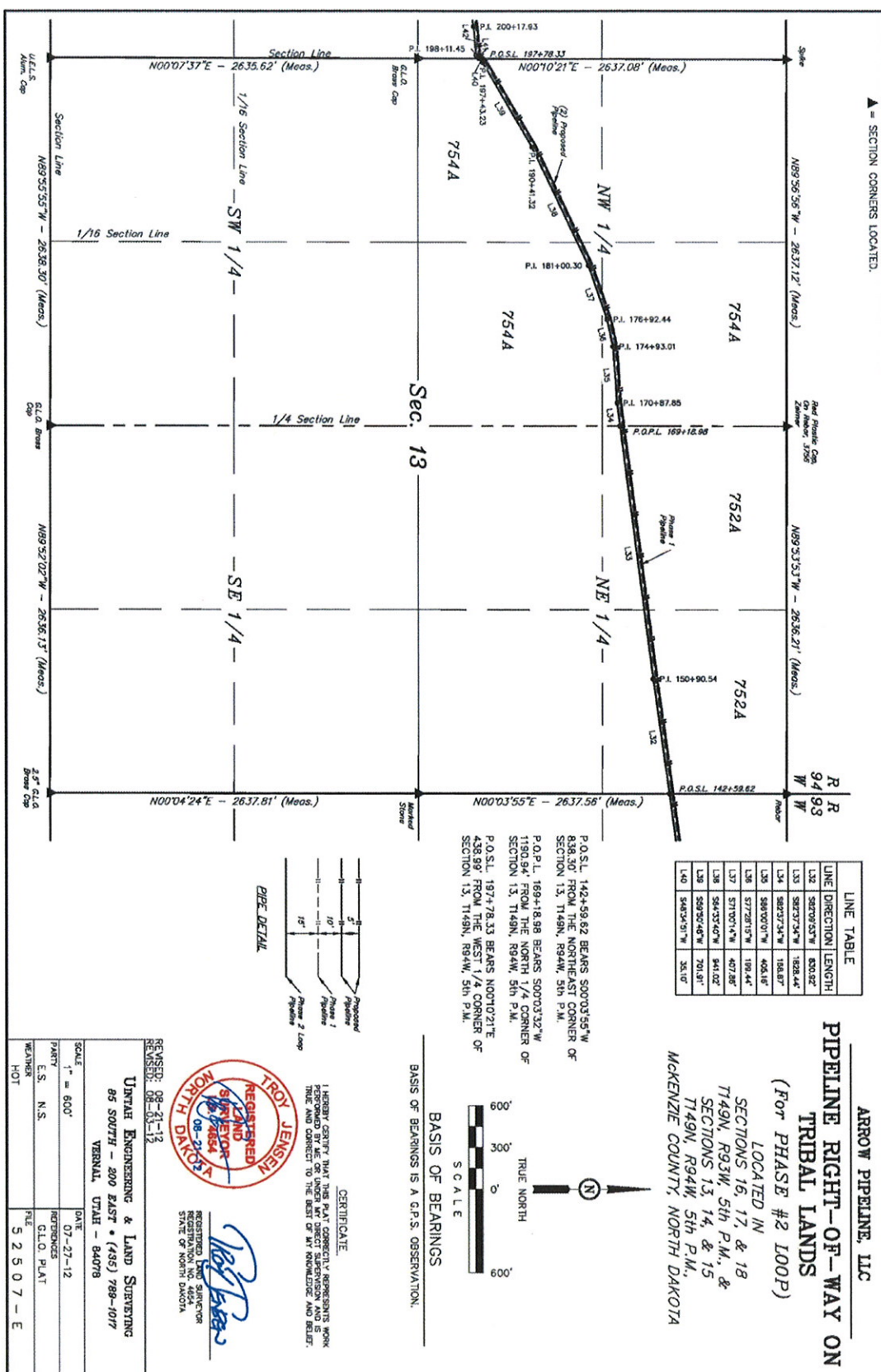




**Categorical Exclusion 516 DM 10.5 F (1) to Authorize Land Use for the  
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## SWCA



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*SWCA*





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*SWCA*

